PSC REF#:111003

Public Version

Response of Wisconsin Power and Light Company to

The Public Service Commission of Wisconsin Data Request No. 3.11

Docket Number: 05-CE-137
Date of Request: March 11, 2009
Information Requested By: Ken Detmer
Date Responded: April 3, 2009
Author: Eric Guelker

Author's Title: Mgr Environmental Services

Author's Telephone No.: (608) 458-8163

Witness: (If other than Author)

Data Request No. 3.11:

Follow-up to Question 1.22: How has the economic maximum output changed for Edgewater 3 in the past five years? Is there a maximum NOx limit (assuming an averaging period of 1 hour or greater) for Unit 3 that will not be exceeded under any circumstance? Compare response to what was provided in response to MAR-05 in 6680-FR-101.

Response:

TABLE 1 provides the net peak demand for Edgewater Unit 3.

To comply with RACT, there is a maximum NOx rate limit (with an averaging period of 1 hour or greater) for Unit 3 as an individual unit. However, because WPL is currently choosing to control NOx emissions to comply with RACT by using the facility averaging approach, Edgewater Generating Station, as a facility, will be subject to a maximum NOx rate limit. The facility NOx rate limit overrides the Unit 3 NOx rate limit for demonstrating compliance with RACT; thus, the Unit 3 NOx rate limit can be exceeded as long as the facility NOx rate limit is met. The impending RACT requirements will require the facility to meet a NOx emissions rate limit for both an annual and ozone season (May – September) averaging period. WPL notes that in Phase II there is a mass emissions limit if a utility utilizes the facility averaging approach.

To support meeting the RACT facility limit for Phase I, WPL expects Unit 3 to operate while maintaining lower NOx emissions than it has previously. The Selective Non-Catalytic Reduction (SNCR) / Rich Reagent Injection (RRI) system installed on Unit 3 in Q4 2008 will support Unit 3's continued operation while maintaining lower NOx emissions.

TABLE 1: Edgewater Unit 3 Net Peak Demand (2004 – 2008)

| Year | Net Peak Demand on Plant (MW) (FERC Form 1, line 6) |
|------|--|
| 2004 | 76 |

Public Version

| 2005 | 75 |
|------|----|
| 2006 | 77 |
| 2007 | 72 |
| 2008 | 72 |

| • | net peak demand dropped in 2007 and 2008 relative to prior | |
|---|--|--|
| years due to changes in p | lant operations t | |
| | | |
| | | |
| | | |
| | As indicated in WPL's confidential response to MAR-05 in | |
| 6680-FR-101, | | |
| | One of the benefits | |
| realized from these changes in plant operations was the ability of the unit to maintain | | |
| lower NOx emissions than it had previously in its day-to-day operations and better | | |
| support the facility as a whole in meeting its impending RACT limits. | | |